



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:)
)
 KEVIN K. FUNK)
) Group Art Unit 2125
 Serial No. 09/643,389)
) Examiner M. Von Buhr
 Filed: August 22, 2000)
) Atty Dkt: 10970997-3
 For: APPARATUS AND METHOD)
 FOR MANUFACTURING)
 INTEGRATED CIRCUIT)
 DEVICES)

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DECLARATION OF KEVIN K. FUNK UNDER 37 CFR 81.131

I, Kevin K. Funk, hereby declare that:

- 1) I am the inventor of the invention claimed in the above-identified patent application.

Conception

- 2) Prior to January 22, 1997, I conceived the idea of a manufacturing system for manufacturing integrated circuit devices as claimed in the above-identified patent application.
- 3) A copy of two drawings relating to the invention claimed in the above-identified patent application are attached hereto as Exhibits A and B. The Exhibit A drawing generally corresponds to Fig. 3 in the above-referenced patent application, while the Exhibit B drawing generally corresponds to Fig. 4. I prepared these drawings prior to January 22, 1997. The specific date appearing on the drawings has been blocked off in Exhibits A and B as permitted by MPEP 715.07.
- 4) The Exhibit A and B drawings are relied upon to

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evidence conception of the human interface device 200 as shown, for example, in Figs. 3 and 4 of the above-referenced application and as recited in the claims.

- 5) A copy of a document entitled "JUSTIFICATION FOR PURCHASE OF ZEBRA Z90XiII BARCODE PRINTER" is attached hereto as Exhibit C. A copy of a Hewlett-Packard Company purchase order is also attached hereto as Exhibit D. The Exhibit C document discusses the desirability of placing a barcode label indicative of the lot identification on the ID tag for each lot of wafers. Such barcode labels are illustrated, for example, in Fig. 3 of the above-referenced application where one of these is denoted by the reference numeral 312. The barcode label is read by scanners such as the scanners 220 and 250 as shown, e.g., in Fig. 3 of the above-referenced application and as recited in the claims. The Exhibit C document also discusses a thermal transfer printer for printing barcode labels on tags. The Exhibit D purchase order was prepared to actually secure the purchase of the thermal transfer printer referred to in the Exhibit C document. I prepared the Exhibit C document and the Exhibit D purchase order prior to January 22, 1997. The specific dates appearing on the Exhibit C document and the Exhibit D purchase order have been blocked off in Exhibits C and D as permitted by MPEP 715.07.
- 6) The Exhibit C document is relied upon to evidence conception of the barcode labels (e.g., the barcode label 332 in Fig. 3 of the application) and of barcode scanners 220 and 250 as shown, for example, in Figs. 3 and 4 of the application and as recited

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in the claims. The Exhibit C document is further relied upon to generally evidence conception of the intrinsic-time photolithographic processing techniques disclosed in the application. The Exhibit D purchase order is relied upon as further evidentiary support for the Exhibit C document.

- 7) A copy of a document entitled "JUSTIFICATION FOR PURCHASE OF SICK CLV210 BARCODE SCANNERS" is attached hereto as Exhibit E. A copy of a Hewlett-Packard Company purchase order is also attached hereto as Exhibit F. The Exhibit E document discusses the desirability of being able to read the lot ID directly off of the lot box (via a barcode label) with a barcode scanner. Such barcode scanners are illustrated, for example, in Fig. 3 of the above-referenced application where they are denoted by the reference numerals 230, 250. The Exhibit F purchase order was prepared to actually secure the purchase of the barcode scanners referred to in the Exhibit E document. I prepared the Exhibit E document and the Exhibit F purchase order prior to January 22, 1997. The specific dates appearing on the Exhibit E document and the Exhibit F purchase order have been blocked off in Exhibits E and F as permitted by MPEP 715.07.
- 8) The Exhibit F document is relied upon to further evidence conception of the scanners 220 and 250 as shown, for example, in Figs. 3 and 4 of the application and as recited in the claims. The Exhibit E document is further relied upon to generally evidence conception of the intrinsic-time photolithographic processing techniques disclosed in the application. The Exhibit F purchase order is

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relied upon as further evidentiary support for the Exhibit E document.

- 9) A copy of a document entitled "JUSTIFICATION FOR PURCHASE OF Z-ULTIMATE TAG STOCK" is attached hereto as Exhibit G. A copy of a Hewlett-Packard Company purchase order is also attached hereto as Exhibit H. The Exhibit G document discusses the desirability of placing a barcode label indicative of the lot identification on the ID tag for each lot of wafers. Such barcode labels are illustrated, for example, in Fig. 3 of the above-referenced application where one of these is denoted by the reference numeral 312. The barcode label is read by scanners such as the scanners 220 and 250 as shown, e.g., in Fig. 3 of the above-referenced application and as recited in the claims. The Exhibit H purchase order was prepared to actually secure the purchase of the tag stock referred to in the Exhibit G document. I prepared the Exhibit G document and the Exhibit H purchase order prior to January 22, 1997. The specific dates appearing on the Exhibit G document and the Exhibit H purchase order have been blocked off in Exhibits G and H as permitted by MPEP 715.07.
- 10) The Exhibit G document is relied upon to further evidence conception of the scanners 220 and 250 as shown, for example, in Figs. 3 and 4 of the application and as recited in the claims. The Exhibit G document is further relied upon to generally evidence conception of the intrinsic-time photolithographic processing techniques disclosed in the application. The Exhibit H purchase order is relied upon as further evidentiary support for the Exhibit G document.

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Reduction to Practice

- 11) According to my written records, on March 20, 1997, a fully functional test of the manufacturing system, as currently claimed in the instant application, was performed within the United States of America at my direction. Based upon my observation of the test, I was confident that the manufacturing system would work for its intended purpose.
- 12) Attached hereto as Exhibit I is a commemorative display entitled "Lot ID Tag From 1" PERRIER Demonstration". I created the Exhibit I display in order to commemorate the first successful demonstration testing of the manufacturing system currently claimed in the above-referenced application. I created the Exhibit I display shortly after the first successful testing was completed on March 20, 1997, by mounting one of the barcode labels used in the first successful test (designated NPMS6A9946) on a background and adding the above-noted title and the date of the test, i.e., March 20, 1997. The term "PERRIER" was the Hewlett-Packard Company internal code name used for the project to develop the manufacturing system according to the claims of the above-referenced application. I keep the Exhibit I display in my office at Hewlett-Packard Company to remind me of the achievement that the development and the successful testing of the manufacturing system represent.
- 13) The Exhibit I display is relied upon as evidence showing that a successful test of the manufacturing system claimed in the above-referenced application

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occurred on March 20, 1997.

- 14) Attached hereto as Exhibit J is a thank-you tag that I created and presented to Dave Mills of Hewlett-Packard Company to thank Mr. Mills for his support of the PERRIER project. As noted above, the term "PERRIER" was the Hewlett-Packard Company internal code name used for the project to develop the manufacturing system according to the claims of the above-referenced application. The Exhibit J tag notes the date of the 1st successful demonstration testing of the PERRIER system as March 20, 1997. When presenting the tag to Mr. Mills, I first placed it on a bottle of PERRIER[®] water. I created the Exhibit J tag shortly after the first successful testing was completed on March 20, 1997.
- 15) The Exhibit J tag is relied upon as evidence showing that a successful test of the manufacturing system claimed in the above-referenced application occurred on March 20, 1997.
- 16) Attached hereto as Exhibit K is a copy of an internal communication from Dave Mills of Hewlett Packard Company to Mark Anderson of Hewlett-Packard Company. The Exhibit K communication is dated March 31, 1997 and indicates that a successful test of the PERRIER system had occurred as of that time. As noted above, the term "PERRIER" was the Hewlett-Packard Company internal code name used for the project to develop the manufacturing system according to the claims of the above-referenced application.
- 17) The Exhibit K communication is relied upon to show that successful testing, and, thus, an actual reduction to practice, of the manufacturing system

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claimed in the above-referenced application occurred
prior to March 31, 1997.

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Diligence

- 18) During a period from prior to January 22, 1997, to March 20, 1997, I worked on the planning, manufacture and installation of the manufacturing system that was tested on March 20, 1997. I estimate that these tasks consumed over 90 percent of the time that I spent working at Hewlett-Packard Company during the period at least from just prior to January 22, 1997, to March 20, 1997.
- 19) During a period from before January 22, 1997, to March 20, 1997, I tracked the delivery of various equipment and materials needed for the testing of the manufacturing system that ultimately occurred on March 20, 1997. I also inspected the equipment and materials when received at Hewlett Packard Company and installed and/or supervised the installation of the equipment and materials in an effort to achieve the above-noted successful testing that took place on March 20, 1997.
- 20) As previously noted, a copy of a Hewlett-Packard Company purchase order is attached hereto as Exhibit D. The Exhibit D purchase order was prepared to secure the purchase of a thermal transfer printer that was used in conjunction with the successful test referred to above that occurred on March 20, 1997. At least during the period from just before January 22, 1997, to March 20, 1997, I worked on the implementation of computer software to be used in conjunction with the thermal transfer printer. During this period, I also printed and/or supervised the printing of barcode labels with the thermal transfer printer onto tag stock for use in

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- conjunction with the system on which the above-noted successful testing took place on March 20, 1997.
- 21) The Exhibit D purchase order is further relied upon to demonstrate an example of the activity that occurred during the period from prior to January 22, 1997, to March 20, 1997, in an effort to achieve successful testing of the manufacturing system as disclosed and claimed in the above-referenced application.
- 22) As previously noted, a copy of a Hewlett-Packard Company purchase order is attached hereto as Exhibit H. The Exhibit H purchase order was prepared to secure the purchase of tag stock that was used in the successful test referred to above that occurred on March 20, 1997. According to my written records, this tag stock was delivered to Hewlett-Packard Company on or around January 3, 1997. After delivery of the tag stock, I inspected it and thereafter installed and/or supervised the installation of at least a portion of the tag stock into the thermal printer referenced above in order that barcode labels could be printed to facilitate the above-noted successful testing that took place on March 20, 1997. At least during the period from just before January 22, 1997, to March 20, 1997, I printed and/or supervised the printing of barcode labels with the thermal transfer printer discussed above onto the tag stock for use in conjunction with the system on which the above-noted successful testing took place on March 20, 1997.
- 23) The Exhibit H purchase order is further relied upon to demonstrate an example of the activity that occurred during the period from prior to January 22,

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1997, to March 20, 1997, in an effort to achieve successful testing of the manufacturing system as disclosed and claimed in the above-referenced application.

- 24) During the period from just prior to January 22, 1997, and March 20, 1997, there were no periods in which I did not actively pursue the effort to make ready the system addressed by the claims of the above-referenced application for the successful testing thereof that occurred on March 20, 1997.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Kevin K. Funk
Kevin K. Funk

Date: January 14, 2003